SEVERINE FOURNIER

918 S Marengo Ave, Apt 1 Pasadena, CA 91106, USA severine.fournier@gmail.com +1 626 787 6459	French, 28 Holder of driving license and boat license

QUALIFICATIONS

2010-2014 **PhD -** Spatio-temporal coherence between spaceborne measurements of salinity and optical properties in the Amazon-Orinoco plume region, **IFREMER** – Satellite Oceanography Laboratory, Brest, France with Nicolas Reul and Bertrand Chapron, with Honors

2009-2010 Research **Master Degree Physical Methods in Remote sensing, University Paris 7**

2006-2009 **ENSIETA,** Brest, France - Specialization **Hydrography-Oceanography**
French Graduate Engineering School
Category A IHO Certificate

2004-2006 **Lycée Bellevue,** Toulouse, France
Classes préparatoires, equivalent to the first two years of undergraduate studies: intensive preparation courses for competitive exams to the top French Engineering Schools

2001-2004 **Lycée Pierre Paul Riquet,** Toulouse, France
Scientific Baccalaureat (High School Diploma), specialization Mathematics, with Honors

PROFESSIONAL EXPERIENCE

2010-2014 **PhD Thesis,** IFREMER, France
Researcher in IFREMER's Satellite Oceanography Laboratory
Spatio-temporal coherence between spaceborne measurements of salinity and optical properties in the Amazon-Orinoco plume region:
- Correlation between SMOS sea surface salinity (SSS) and ocean color sensors optical properties
- Establishment of the conservative mixing relationships in the Amazon plume
- SSS retrieval from ocean color in the Amazon plume
- Lagrangian approach of the SSS/optical properties relationship using altimetric currents

2010 **CLS – Collecte et Localisation par Satellites,** France
5 months *Research internship in the Space Oceanography Division*
Intercalibration of an ICESat altimetric database with the conventional altimetric radars:
- Adaptation of a C data acquisition code
- Comparisons between ICESat, Jason-1 and ENVISAT data
- Study of cross overs (ICESat-ICESat, ICESat-ENVISAT, ICESat-Jason-1)
- Use of data filters

2009 **CARIS BV,** The Netherlands
5 months *Assistant engineer*
Study on the influence of input values in the computation of the total depth and horizontal uncertainties of bathymetric data (TPE) and in the computation of a statistical method of processing data (CUBE)

2008 **Canadian Hydrographic Service,** Canada
2 months *Hydrographer onboard Coast Guard Ship Matthew, Newfoundland and Labrador*
- Acquisitions on a launch
- Bathymetric data processing
- Tide gauges setting up, GPS acquisitions (rocks, coastlines)

2007 **CEAT - Centre d'Essais Aéronautiques de Toulouse,** France
1 month *Worker internship*

COLLABORATIONS

Nicolas Reul, Bertrand Chapron – *IFREMER, France*
Joe Salisbury, Doug Vandemark, Tim Moore - *University of New Hampshire, USA*

PEER-REVIEWED PUBLICATIONS

Fournier S., Chapron B., Salisbury J., Vandemark D., Reul N. (2014). Spatio-temporal analysis of the conservative mixing between spaceborne measurements of Sea Surface Salinity and Optical Properties in the Amazon plume. *Journal of Geophysical Research, submitted.*

Chapron B., Reul N., Quilfen Y., **Fournier S.**, Sabia R. (2014). Multi-Sensor Observations of the Amazon Orinoco River Plume Interactions with Hurricanes. *Journal of Geophysical Research, volume 119, pages 8271-8295.*

Reul N., **Fournier S.**, Boutin J., Hernandez O., Maes C., Chapron B., Alory G., Quilfen Y., Tenerelli J., Morisset S., Kerr Y., Mecklenburg S., and Delwart S. (2013). Sea surface salinity observations from space with the SMOS satellite: A new means to monitor the marine branch of the water cycle. *Surveys in Geophysics, pages 1-42.*

PROCEEDINGS

Salisbury J., Vandemark D., **Fournier S.**, Reul N., Chapron B., Mannino A., Wollheim W.M. Linking the continental landmass to biogeochemical variability in the coastal ocean: the role of hydrological models and new satellite ocean color and salinity sensors. *AGU Fall Meeting, 2012 Abstracts, 1, L06.*

Reul N., Chapron B., Tenerelli J., **Fournier S.**, Quilfen Y. Sea Surface Salinity observations from Space : A new tool to monitor the oceanic freshwater cycle as well as ocean/land and ocean/atmosphere interactions. *EGU General Assembly, 2012. EGU General Assembly Conference Abstracts 14, 8720.*

Fournier S., Reul N., Charpon B., Tenerelli J. Spatio-temporal coherence between spaceborne measurements of Salinity and Light Absorption in the Amazon plume region. *ESA-SOLAS, Earth Observation for Ocean Atmosphere Interaction Science, 29th November-2nd December 2011, ESRIN, Frascati, Italy. ESA Special Publication 703, 10.*

CONFERENCES

Fournier S., Reul N., Chapron B., Salisbury J., Vandemark D., Large tropical river plume monitoring with SMOS to better estimate land-sea freshwater fluxes. *ESA-EGU-SOLAS, Air-Sea Gas Flux Climatology, Progress and Future Prospect, 24th – 27th September 2013, Ifremer, Brest, France* – oral presentation.

Fournier S., Reul N. Spatio-temporal coherence between spaceborne measurements of Salinity and Light Absorption in the Amazon plume region. *ESA Living Planet Symposium, 9th – 13th September 2013, Edinburgh, Scotland* – poster.

Fournier S., Reul N. Spatio-temporal coherence between spaceborne measurements of Salinity and Light Absorption in the Amazon plume region. *India EU Workshop on Marine Primary Production, 12th -15th March 2013, Kochi, India* – oral presentation.

Fournier S., Reul N., Charpon B., Tenerelli J. Spatio-temporal coherence between spaceborne measurements of Salinity and Light Absorption in the Amazon plume region. *ESA-SOLAS, Earth Observation for Ocean Atmosphere Interaction Science, 29th November-2nd December 2011, ESRIN, Frascati, Italy. ESA Special Publication 703, 10* – oral presentation.

SKILLS

Laguages	French (mother tongue), English (fluent - TOEFL : 610), Spanish (conversational level), Bahasa Indonesia (basic level)
Computer	Windows, Linux / Unix, Mac OS, Matlab, Scilab, Python, LateX, Microsoft Office, Open Office
Volunteer	Treasurer of the ENSIETA students committee 2007 – 2008 Member of GENEPI: teaching mathematics lessons to incarcerated people

Sports and Travelling